Amendment to the Claims:

1. (Previously Presented) A device comprising:

a controller;

a memory coupled to the controller; and

an input interface which receives at least two event signals,

wherein the controller determines:

a global correlation matrix for the at least two event signals over a first period of time,

a local correlation matrix for the at least two event signals over a second period of time which is shorter than the first period of time,

a correlation vector indicative of a deviation between the local correlation matrix and the global correlation matrix,

an average of the correlation vector, and

whether an artifact was detected in one of the at least two event signals from the correlation vector and the average of the correlation vector.

2. (Previously Presented) The device according to Claim 1 wherein said device is a patient monitoring system.

3. (Previously Presented) The device according to Claim 2 wherein said at least two event signals are monitored patient data signals.

4. (Previously Presented) A patient monitoring system comprising:

a controller;

a memory coupled to the controller;

an input interface configured to receive at least two event signals, the at least two event signals being patient monitored data signals;

wherein the controller determines whether an artifact is detected by:

repeatedly determining a global correlation for the at least two event signals over a first period of time,

repeatedly determining a local correlation for the at least two event signals over a second period of time which is shorter than the first period of time,

repeatedly determining a current deviation between the local correlation and the global correlation,

determining an average deviation of a plurality of the current deviations, and

determining whether an artifact was detected in one of the at least two event signals based on a difference between the current deviation and the average deviation; and

an alarm indicator coupled to the controller, the alarm indicator being triggered if at least one of the event signals crosses a preset threshold value and the controller determines that no artifact was detected in the at least one event signal.

5. (Previously Presented) The device according to Claim 1 further comprising a memory for recording the at least two event signals.

6. (Previously Presented) The device according to Claim 1, wherein said device includes a server forming part of a client-server network.

7. (Previously Presented) A method for detecting a signal artifact in event signals, the method comprising the steps of:

receiving at least two event signals;

determining a global correlation for the at least two event signals over a first period of time;

determining a local correlation for the at least two event signals over a second period of time which is shorter than the first period of time;

repeatedly determining a current deviation between the local correlation and the global correlation;

determining an average deviation from a plurality of the determined current deviations;

comparing the current deviation and the average deviation to determine whether an artifact was detected in one of the at least two event signals; and

triggering an alarm indication in response to determining that an artifact was detected.

8. (Previously Presented) The method according to Claim 7 wherein said method is used with a patient monitoring system.

9. (Previously Presented) The method according to Claim 8 wherein said at least two event signals are monitored patient data signals.

10. (Currently Amended) The method according to Claim 9, said method further comprising the step of:

providing the alarm indication in response to at least one of the event signals crossing a preset threshold value ~~and no artifact was detected in the at least one event signal~~.

11. (Previously Presented) The method according to Claim 7, said method further comprising the step of:

recording the at least two event signals.

12. (Previously Presented) The method according to Claim 7, wherein said method is used in a server forming part of a client-server network.

13. (Previously Presented) A system for detecting a signal artifact in an event signal, comprising:

means for receiving at least two event signals;

means for determining a global correlation for the at least two event signals over a first period of time;

means for determining a local correlation for the at least two event signals over a second period of time which is shorter than the first period of time;

means for determining a deviation between a local correlation vector and a global correlation vector;

means for determining an average deviation from the deviation; and

means for determining whether an artifact was detected in one of the at least two event signals based upon the average deviation.

14. (Previously Presented) The system according to Claim 13 wherein said system is a patient monitoring system.

15. (Previously Presented) The system according to Claim 14 wherein said at least two event signals are patient monitored data signals.

16. (Previously Presented) The system according to claim 13 further including:

means for monitoring at least one physiological parameter of a patient and generating the at least two event signals, said at least two event signals conveying patient physiological parameter data.